

**AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Original) A method for enabling a virtual network between a first processor and a second processor using at least one additional processor separate from the first processor and the second processor, the method comprising the steps of:

determining, at the at least one additional processor, a first virtual address and a first base address for the first processor such that the first virtual address is routable through the virtual network and the first base address is routable through a base network;

determining, at the at least one additional processor, a second virtual address and a second base address for the second processor such that the second virtual address is routable through the virtual network and the second base address is routable through the base network;

providing, by the at least one additional processor, the first virtual address and the first base address to the first processor and the second virtual address and the second base address to the second processor; and

enabling the virtual network over the base network based on the first virtual address, the first base address, the second virtual address, and the second base address.

2. (Original) The method of claim 1, further comprising the step of:  
forwarding information to the first processor based on the first virtual address and the first base address routable through the base network such that the information is forwarded through the virtual network using the first virtual address and through the base network using the first base address.
3. (Original) The method of claim 2, further comprising the step of:  
layering the virtual network over the base network, wherein the base network is the Internet.
4. (Original) The method of claim 1, further comprising the step of:  
maintaining, at the at least one additional processor, a plurality of virtual addresses for the virtual network.
5. (Original) The method of claim 4, further comprising the step of:  
establishing, by the first processor, a tunnel from the first processor to the at least one additional processor using the first virtual address for the first processor and at least one of the plurality of virtual addresses for the at least one additional processor.
6. (Original) The method of claim 4, further comprising the step of:  
selecting the first virtual address from the plurality of virtual addresses.

7. (Original) The method of claim 6, wherein said step of selecting further comprises the step of:

selecting the first virtual address such that when the first virtual address is assigned to the first processor, the at least one additional processor does not assign the first virtual address to any other processors on the virtual network.

8. (Original) The method of claim 1, wherein said step of providing, by the at least one additional processor, further comprises the step of:

providing the first virtual address to the first processor with program code and information to configure the first processor.

9. (Original) The method of claim 1, further comprising the step of:  
establishing, by the first processor, one or more tunnels from the first processor to the second processor using the first and second virtual addresses.

10. (Original) The method of claim 1, further comprising the step of:  
determining the first base address on the base network for the first processor based on information received from the first processor.

11. (Original) The method of claim 1, wherein said step of providing, by the at least one additional processor further comprises the step of:

providing the first and second virtual addresses to the first and second processors, respectively, when each of the first and second processors receives program code and information from the at least one additional processor.

12. (Original) The method of claim 1, wherein said step of providing, by the at least one additional processor further comprises the step of:

assigning the first and second virtual addresses statically such that the first and second addresses are permanently assigned to the first and second processors, respectively.

13. (Original) The method of claim 1, wherein said step of assigning the first and second virtual addresses statically further comprises the step of:

reassigning the first virtual to another processor when the first processor is not interfaced to the virtual network.

14. (Original) The method of claim 1, wherein the virtual network is a virtual private network.

15. (Original) A virtual network comprising:

a first processor;

a second processor; and

at least one additional processor separate from the first processor and the second processor that enables said virtual network between the first and second processor, the at least one additional processor further comprising:

means for determining a first virtual address and a first base address for the first processor such that the first virtual address is routable through the virtual network and the first base address is routable through a base network;

means for determining a second virtual address and a second base address for the second processor such that the second virtual address is routable through the virtual network and the second base address is routable through the base network; and

means for providing the first virtual address and the first base address to the first processor and the second virtual address and the second base address to the second processor,

wherein said virtual network is enabled over the base network based on the first virtual address, the first base address, the second virtual address, and the second base address.

16. (Currently amended) The virtual network of claim 15, further comprising ~~the step of:~~

means for forwarding information to the first processor based on the first virtual address and the first base address routable through the base network such that the information is forwarded through the virtual network using the first virtual address and through the base network using the first base address.

17. (Currently amended) A computer program product for enabling a virtual network between a first processor and a second processor using at least one additional processor separate from the first processor and the second processor, the computer program product comprising code embodied on a computer readable ~~media~~ medium, said code comprising:

code that determines, at the at least one additional processor, a first virtual address and a first base address for the first processor such that the first virtual address is routable through the virtual network and the first base address is routable through a base network;

code that determines, at the at least one additional processor, a second virtual address and a second base address for the second processor such that the second virtual address is routable through the virtual network and the second base address is routable through the base network;

code that provides, by the at least one additional processor, the first virtual address and the first base address to the first processor and the second virtual address and the second base address to the second processor; and

code that enables the virtual network over the base network based on the first virtual address, the first base address, the second virtual address, and the second base address.

18. (Original) The computer program product of claim 17, further comprising:

code that forwards information to the first processor based on the first virtual address and the first base address routable through the base network such that the information is forwarded through the virtual network using the first virtual address and through the base network using the first base address.



19. (Original) A system for enabling a virtual network between a first processor and a second processor using at least one additional processor separate from the first processor and the second processor, the system comprising:

at least one memory including code comprising

code that determines, at the at least one additional processor, a first virtual address and a first base address for the first processor such that the first virtual address is routable through the virtual network and the first base address is routable through a base network,

code that determines, at the at least one additional processor, a second virtual address and a second base address for the second processor such that the second virtual address is routable through the virtual network and the second base address is routable through the base network,

code that provides, by the at least one additional processor, the first virtual address and the first base address to the first processor and the second virtual address and the second base address to the second processor, and

code that enables the virtual network over the base network based on the first virtual address, the first base address, the second virtual address, and the second base address; and

at least one processor that executes said code.

20. (Original) The system of claim 19, wherein the at least one memory further comprises code that forwards information to the first processor based on the first virtual address and the first base address routable through the base network such that the information is forwarded through the virtual network using the first virtual address and through the base network using the first base address.